

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH DAKOTA
SOUTHERN DIVISION

STEVE and ALLISON GARRY,

Plaintiffs,

vs.

HOMELAND CENTRAL INSURANCE
COMPANY, formerly known as HAWKEYE
SECURITY INSURANCE COMPANY,

Defendant.

CIV. 03-4019

**DEFENDANT’S BRIEF IN SUPPORT OF
ITS MOTION TO EXCLUDE
TESTIMONY OF NEIL CARLSON**

Defendant Homeland Central Insurance Company, formerly known as Hawkeye Security Insurance Company (“Hawkeye”), submits this brief in support of its motion to exclude the testimony that Plaintiffs’ designated expert witness, Neil Carlson, intends to offer in this case. Mr. Carlson’s opinions are set forth in his report dated April 19, 2004. (Carlson Report (Affidavit of Mitchell Peterson (“Peterson Aff.”) Ex. R, submitted contemporaneously with this brief).) Mr. Carlson intends to testify that the leaking toilet in Plaintiffs’ master bedroom was the “primary source” of Stachybotrys and Chaetominum mold types allegedly detected in air sampled in several areas of the basement of Plaintiffs’ home, and that the numerous other water intrusions that previously occurred over the years in the home, for which Plaintiffs concede no coverage exists under the Hawkeye policy, were only “secondary sources” of that mold. Plaintiffs apparently intend to use Mr. Carlson’s testimony to show that the dominant and

efficient cause of the alleged mold contamination in their home was the leaking toilet, rather than mold resulting from the other water intrusions or from general atmospheric conditions in the home. However, Mr. Carlson's testimony does not satisfy the standard set forth in Federal Rules of Evidence 702 or the principles established by *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). His opinions are not based on any scientifically valid or accepted methodology or principles and, therefore, are not reliable. Moreover, Mr. Carlson's opinion that water from the leaking toilet "contributed to" the growth of various mold types, along with water from other sources, does not "fit" the issues in this case and, thus, is not relevant to the coverage issue in this case as framed by Court in its decision dated March 5, 2004 — "whether the leaking toilet, the mold, or some other uncovered peril was the dominant and efficient cause of the loss...."

I. INTRODUCTION

In his report, Mr. Carlson purports to be able to differentiate among what he refers to as "primary" and "secondary" sources of various types of mold (*Stachybotrys*, *Chaetomium*, *Aspergillus* and *Penicillium*) allegedly detected in the Plaintiffs' home. He opines that a leaking toilet in Plaintiffs' master bedroom above the southwest bedroom in the basement (apparently first discovered by Plaintiffs in 1999 and which Plaintiffs claim is an event covered under their homeowners' insurance policy with Hawkeye) is the "primary source" of *Stachybotrys* and *Chaetomium* mold allegedly found in the home in July 2002. Mr. Carlson further opines that several sewer backups and other water intrusions, including (leaking windows and leaking refrigerator ice maker) that occurred in various areas of the home in July 2002 and in prior years (which Plaintiffs concede are not at issue under the Hawkeye policy) were the "secondary sources" of those two mold types. He also states that those other water intrusions were sources

of the *Aspergillus* and *Penicillium* mold types that Plaintiffs also allege contaminated their home when they abandoned it on or about August 1, 2002. Significantly, Mr. Carlson concedes that *Aspergillus* and *Penicillium* spores were “spread throughout the house more than *Stachybotrys* ssp. and *Chaetomium* ssp.” and he does not offer any opinion that the leaking toilet in the master bedroom was a “primary” source of the *Aspergillus* and *Penicillium* mold types in comparison to the other water intrusions. Mr. Carlson asserts that he bases his opinions on his review of data from sampling done for the presence of mold in the air and on surfaces of materials in the Plaintiffs’ home and personal property. He also asserts that his opinions are based on the observations of water staining on walls and floors in the home that he made for the first time more than eight months after Plaintiffs abandoned their home.

Based on Mr. Carlson’s testimony, Plaintiffs contend that the leaking toilet in the master bedroom is the dominant and efficient cause of the mold that allegedly contaminated and damaged their home and personal property during the Hawkeye policy period. However, as discussed below, the methodology or technique used by Mr. Carlson in reaching his opinion that the leaking toilet is the “primary” source for the *Stachybotrys* and *Chaetomium* mold in Plaintiffs’ home is not scientifically reliable or valid. In particular, neither Mr. Carlson nor anyone else has used this methodology in any other matter, this methodology has not been the subject of any peer reviewed scientific publication, the potential error rate of such methodology is unknown, and there is no proof that this methodology is based on any scientific knowledge or is generally accepted by the scientific community. Mr. Carlson’s technique or method is being used solely for litigation purposes. Mr. Carlson’s opinions are based solely on *ipse dixit*, because he does not describe any methodology by which other scientists and persons with expertise in the industrial hygiene field can attempt to replicate his analysis and conclusions.

Tellingly, the very exhibits that Mr. Carlson relies upon and attaches to his report demonstrate the unreliability of the methodology upon which he bases his opinions. Specifically, MacGregor Pearce, Mr. Carlson's colleague at the University of Minnesota and the person with whom Mr. Carlson developed a remediation plan for Plaintiffs' home, investigated the reported mold problem in Plaintiffs' home in December 2002, several months before Mr. Carlson visited the home. Mr. Pearce also participated in mold testing in Plaintiffs' home in May 2003. In his report to Plaintiffs' prior counsel dated June 20, 2003, which report Mr. Carlson attaches as Exhibit 6 to his report as a basis for his opinions, Mr. Pearce states that

“[w]hile sample results suggest elevated mold levels indoors, they also suggest high levels outdoors. Except for the leaking windows, there do not appear to be any active moisture problems in this property. **The past history of reported moisture problems makes it difficult to sort out just what caused what.** It is my opinion, based on the information at hand, that with a thorough cleaning this house should be fit to occupy.” (Carlson Report Ex. 6 at 6 (emphasis supplied).)

Mr. Pearce also candidly admits the problem “in coming to reasonable conclusions” about the mold detected in sampling of the home:

“Where did the mold spores found on the living room shelf or the upholstered furniture come from? No one can say. They may have come from water damage in this home, but the area surrounding this home is agricultural land. When soil is disturbed during plowing or cultivation, high levels of *Aspergillus* and *Penicillium* species (normally associated with indoor mold problems) can be released into the air...” (Carlson Report Ex. 6 at 4-5.)

Most importantly, in his recent deposition in this case Mr. Carlson admitted, in view of the many events of water intrusion in Plaintiffs' home prior to July 2002, that it is difficult to “sort out what caused what” with respect to each of the four mold types allegedly present in Plaintiffs' home and on their personal property. (Carlson Dep. at 181-82 (Peterson Aff. Ex. Q).) He further conceded that “to some degree there is always a level of uncertainty” in trying to determine what caused those mold types to be present in Plaintiffs' home. (*Id.* at 176-77.)

Mr. Carlson's opinions regarding the sources and causes of the mold in Plaintiffs' home are inadmissible under Rule 702 of the Federal Rules of Evidence and the *Daubert* principles because he lacks the requisite expertise and qualifications to render them, they are not based on any scientifically accepted and reliable methodology, and they do not "fit" the coverage issue to be determined in this case. Even if Mr. Carlson is competent to give his opinions and can show that his methodology is reliable, he should be precluded from testifying in any event because he does not and cannot testify to a reasonable degree of scientific certainty that the leaking toilet in the master bedroom of Plaintiffs' home was the "primary source" of the mold that Plaintiffs allege contaminates their home and personal property.¹

II. FACTUAL BACKGROUND CONCERNING MR. CARLSON AND HIS REPORT

Mr. Carlson is a public health specialist employed by the University of Minnesota in its Environmental Health and Safety Office. He is also a certified industrial hygienist. (*See* Carlson Dep. Ex. 2 (curriculum vitae attached).) Plaintiffs offer Mr. Carlson as their expert on industrial hygiene issues generally, as well as with respect to the sources or causes of the mold allegedly contaminating their home and personal property. Mr. Carlson does not have a doctorate degree in industrial hygiene or public health, does not have a masters or advanced degree in microbiology, is not a certified or licensed toxicologist, and has never worked in the construction industry or trades. (Carlson Dep. at 90-91, 106-07.)

¹If the Court concludes that the record presented is not sufficient for it to grant Hawkeye's motion, then Hawkeye respectfully requests this Court to schedule an evidentiary hearing pursuant to *Daubert v. Merrell Dow Pharms, Inc.*, 509 U.S. at 594-595.

Mr. Carlson has published only two peer reviewed articles or papers having any relationship to mold in buildings. (*Id.* at 110-11.) He has never published any peer reviewed articles or papers in which he discusses or sets forth any methodology or system for establishing or differentiating between or among the “primary” or “secondary” sources of mold found in indoor environments, as he purports to do in this case. (*Id.* at 111-12.) Nor has he ever offered any testimony, by way of affidavit or at deposition or trial, concerning whether the source of mold found indoors was either “primary” or “secondary.” (*Id.* at 81.) Carlson also does not know if the terms “primary” or “secondary” are terms used in the industrial hygiene field with reference to sources for mold detected in indoor environments. (*Id.* at 83.)

Mr. Carlson is aware that there were numerous water intrusion events in Plaintiffs’ home prior to the sewer backup in the basement in July 2002, including leaking windows in the southwest and northwest bedrooms in the basement where mold spores were apparently detected in testing done on or about July 29, 2002, two days before Plaintiffs left their home. (*Id.* at 58-59, 71-72, 175-76.) He admits that there is no evidence showing that any mold was present in Plaintiffs’ home, either dead or growing, before the July 2002 sewer backup. (*Id.* at 71.) Thus, there is no “baseline” reflecting the amount of spores of any mold type that were present in Plaintiffs’ home prior to the July 2002 sewer backup. (*Id.* at 47.) Mr. Carlson further admits that there were multiple sources or causes of water intrusion that gave rise to the mold types that Plaintiffs assert were detected in their home as of July 29, 2002 (*Stachybotrys*, *Chaetomium*, *Aspergillus* and *Penicillium*), only one of which he contends was the leaking toilet in the master bedroom. (*Id.* at 51-52, 62-63, 84-85.) Mr. Carlson also concedes that he is unable to state that the leaking toilet in the master bedroom above the southwest bedroom was the “primary source”

of the *Aspergillus* and *Penicillium* mold types apparently detected in the basement and other areas of Plaintiffs' home before Plaintiffs abandoned the home. (*Id.*)

Mr. Carlson's opinion or hypothesis that the leaking toilet was the "primary" source of the *Stachybotrys* and *Chaetomium* mold types found in Plaintiffs' home is based on two grounds: (1) his observations of water stains under the carpet on the floor along some of the walls of the southwest and northwest bedrooms which he believes reflects extensive water intrusion from the leaking toilet in both of those locations where mold spores were detected, and (2) his assessment, as explained for the first time at his deposition on October 22, 2004, that 90% of the *Stachybotrys* and *Chaetomium* mold spores found in air samples taken in the southwest and northwest bedrooms resulted from the disturbance of *Stachybotrys* and *Chaetomium* mold found in the southwest bedroom, rather than from the *Stachybotrys* and *Chaetomium* mold found in other areas of the basement that resulted from sewer backups in July 2002 and earlier.

As to the first ground, however, Mr. Carlson admits that he is not an expert in interpreting water stain lines and cannot state based on the stains he observed how long the carpet in those southwest and northwest bedrooms had been saturated or how long those areas had been wet. (*Id.* at 68, 71.) He also admits that the water stains he observed when he inspected the home in June 2003, almost a year after Plaintiffs left the home, may have been due to windows in the southwest and northwest bedrooms having leaked during a rainstorm earlier that month, rather than from a claimed leak in the master bedroom toilet. (*Id.* at 141-44.) Moreover, he admits that water intrusion from a crack in the foundation of the west wall in the northwest bedroom of the home was also a possible source of the water stains that he observed. (*Id.* at 145-46.) Based on this testimony, there is no factual basis for Mr. Carlson's opinion that

the leaking toilet affected the northwest bedroom, in addition to the southwest bedroom, or for his opinion that mold spores detected in those locations emanated from the leaking toilet.

With respect to the second purported ground for his opinions, Mr. Carlson testified at his deposition that he derived the 90% figure from comparing the “volume” or amount of visible *Stachybotrys* and *Chaetomium* found on the sheetrock and baseboard in the southwest bedroom to the smaller amounts of those same mold types that he asserts were found on other areas of the basement that were affected by the sewer backup. (Carlson Dep. at 41-42, 52, 85-86.) Mr. Carlson does not mention this theory at all in his report. (Carlson Report.) Moreover, nowhere in his report does Mr. Carlson explain how the amount of visible mold types found on surfaces in various locations of Plaintiffs’ home can be extrapolated or correlated to the amounts of mold spores found in air samples taken from those same areas, including the southwest and northwest bedrooms. Most importantly, there is no photographic or videographic evidence showing what volume or amount of suspected *Stachybotrys* or *Chaetomium* mold was present and removed from the sheetrock and from the baseboards of the walls of the southwest bedroom. Even if evidence of amounts or “volumes” of visible mold on surfaces existed, Mr. Carlson does not reference any peer reviewed scientific publications or articles that explain whether and how an extrapolation or correlation of such mold amounts can be made to mold levels detected in air samples in the home. Mr. Carlson does not refer or point to any equation or conversion table that allows him to derive his 90% “best estimate” for that portion of the *Stachybotrys* and *Chaetomium* mold in the air of Plaintiffs’ home that he says resulted from the leaking toilet.

In any event, Mr. Carlson admitted at his deposition that the July 2002 sewer backup in the basement may have caused a mold problem in several areas of Plaintiffs’ basement at some point. (Carlson Dep. at 114-15.) In particular, he conceded that *Stachybotrys* mold growth found

in the laundry room in the basement resulted from the July 2002 sewer backup, and that some of the *Stachybotrys* mold spores found in air samples taken in the northwest bedroom could have come from the laundry room and not from the leaking toilet. (*Id.* 158-59.) Mr. Carlson also admitted that he did not know if the *Stachybotrys* growth found in the laundry room was disturbed at some point and dispersed mold spores throughout Plaintiffs' home. (*Id.* at 166.) For these reasons, Mr. Carlson conceded that he cannot testify whether *Stachybotrys* mold spores found in air samples taken from the basement bathroom in Plaintiffs' home were from the leaking toilet or from the July 2002 sewer backup. (*Id.* 152, 159.)

Mr. Carlson further admitted that Intek, the company hired in July 2002 by Plaintiffs to abate and remove the suspected mold growth from the sheetrock in the southwest bedroom, failed to use proper containment procedures during the abatement,² and that such an uncontrolled abatement contributed to the elevated mold levels that were detected in Plaintiffs' home. (*Id.* at 118-20, 130-33, 135-36.) Indeed, Mr. Carlson testified that “[u]ncontrolled abatement results in significant levels of spore dispersal.” (*Id.* at 161.) Mr. Carlson also admitted that he cannot testify that, in the absence of the uncontrolled abatement by Intek in July 2002, the leaking toilet by itself would have resulted in elevated levels of *Stachybotrys* or *Chaetomium* spores in Plaintiffs' home. (*Id.* at 151-52.)

Further undermining his hypothesis that the leaking toilet was a “primary source” of the *Stachybotrys* and *Chaetomium* mold found in Plaintiffs' home, Mr. Carlson testified at deposition that *Stachybotrys* and *Chaetomium* mold spores probably were also released during

² As noted in Hawkeye's pending motion for summary judgment on Intek removed the suspected mold material before Hawkeye received notice of the leaking toilet claim.

an uncontrolled abatement or remediation of mold that resulted from a refrigerator leak in the home in September 2002, an event unrelated to the toilet leak claim and not at issue in this case. (*Id.* at 143-144.) Furthermore, he testified that *Stachybotrys* mold spores could have been dispersed throughout the home when the ceiling material containing mold in the southwest bedroom was removed and remediated in 1999 without proper engineering controls, an event for which Plaintiffs are not seeking coverage from Hawkey. (*Id.* at 137-38.)

III. ARGUMENT

Although Hawkeye is the party petitioning for the exclusion of expert testimony, Plaintiffs still bear the burden of proving to this Court by a preponderance of the evidence that Mr. Carlson's opinions are admissible. The burden does not shift to the defense to show the testimony inadmissible. *Lauzon v. Senco Prods.*, 270 F.3d 681, 686 (8th Cir. 2001) ("proponent of the expert testimony must prove its admissibility by a preponderance of the evidence") (quoting *Daubert*, 509 U.S. at 592); *see also Cloud v. Pfizer, Inc.*, 198 F. Supp. 2d 1118, 1129 (D. Ariz. 2001); *Grant v. Bristol-Myers Squibb*, 97 F. Supp. 2d 986, 989 (D. Ariz. 2000). Upon challenge, a federal district court must act as a "gatekeeper" to satisfy itself that the proffered expert testimony meets certain standards of reliability before it is admitted. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. at 595-97; *Grant*, 97 F. Supp. 2d at 988.

Plaintiffs here must satisfy both prongs of *Daubert's* two-prong test to meet their burden of proving the admissibility of Mr. Carlson's testimony. *Lauzon*, 270 F.3d at 686. The first prong requires them to establish that Mr. Carlson's opinions are scientifically reliable. The second prong requires them to show that his opinions "fit" the issue to be resolved in this case—

whether the leaking toilet was the dominant and efficient cause of the alleged mold contamination of Plaintiffs' home and personal property. See *Cloud*, 198 F. Supp. 2d at 1129.

A. Carlson's Testimony Is Not Scientifically Reliable and Should Be Barred.

Establishing the scientific reliability of Mr. Carlson's opinions requires Plaintiffs to show that they are grounded in the methods and procedures of science. The *Daubert* Court listed four "non-exclusive" factors to consider in the reliability analysis:

1. Whether the scientific theory or opinion has been or can be tested;
2. Whether the theory or technique underlying an opinion has been subjected to peer review and publication;
3. Whether the method or technique underlying an opinion has a known potential error rate; and,
4. Whether the theory or technique underlying an opinion is generally accepted in the relevant scientific community.

Daubert, 509 U.S. at 593-94; *Cloud*, 198 F. Supp. 2d at 1129.

Another consideration is whether the expert's proffered opinion "grows naturally and directly out of research they have conducted independent of the litigation, or whether they have developed their opinions expressly for the purposes of testifying." *Grant*, 97 F. Supp. 2d at 988 (quoting *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1317 (9th Cir. 1995) (*Daubert (II)*)). Courts also consider whether an expert's opinion is an unjustifiable extrapolation from an accepted scientific premise to an unfounded conclusion. *Roche v. Lincoln Property Co.*, 278 F. Supp. 2d 744, 748-49 (E.D. Va. 2003).

Courts must also consider whether the expert has accounted for and ruled out alternative explanations. *See id.*; *see also Glastetter v. Novartis Pharms. Corp.*, 252 F.3d 986, 989 (8th Cir. 2001) (failure to rule out possible causes through differential diagnosis resulted in exclusion of expert testimony). An expert's opinion that fails to consider and rule out a reasonable alternative hypothesis

is unreliable. *Westberry v. Gislaved Gummi, AB*, 178 F.3d 257, 265 (4th Cir. 1999); *Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194, 202 (4th Cir. 2001); *see also* J.P. Kassirer & R. I. Kopelman, LEARNING CLINICAL REASONING 112 n.2 (1991). An “expert’s failure to consider or control for other explanatory variables is fatal to the reliability of his testimony.” *Flores v. Allstate Texas Lloyd’s Co.*, 229 F. Supp. 2d 697, 703 (S.D. Tex. 2002). Moreover, a district court should exclude an expert’s opinion if he “utterly fails ... to offer an explanation for why the proffered alternative cause” was ruled out. *Cooper*, 259 F.3d at 202. The expert must provide reasons for rejecting alternative hypotheses “using scientific methods and procedures” rather than “subjective beliefs or unsupported speculation.” *See Claar v. Burlington N. R.R. Co.*, 29 F.3d 499, 502 (9th Cir. 1994).

If an expert’s opinions are not based upon independent research, the court must look to whether there is any “other objective, verifiable evidence that the testimony is based on ‘scientifically valid principles.’” *Cloud*, 198 F. Supp. 2d at 1129. Peer review is one way to meet this requirement. It can also be met by the expert’s precise explanation about how he reached his conclusions and by pointing to “some objective source – a learned treatise, the policy statement of a professional association, a published article in a reputable scientific journal or the like – to show that they have followed the scientific method” as practiced by at least a “recognized minority of scientists in their field.” *Id.* at 1129-30 (quoting *Daubert (II)*, 43 F.3d at 1319).

An expert may also rely upon the published reports of others to support his opinions. However, the district courts are directed to “plumb the depths of the precise relationship between the materials cited and the conclusions drawn.” *Metabolife Int’l, Inc. v. Wornick*, 264 F.3d 832, 845 (9th Cir. 2001). In other words, the expert’s conclusions must logically and reliably follow from the premises established in the published research.

Moreover, the district courts must scrutinize the published research upon which the expert relies. Anecdotal case reports are not sufficiently reliable to support an expert's opinions, particularly regarding causation. See *Cloud*, 198 F. Supp. 2d 1133-34; *Jones v. United States*, 933 F. Supp. 894, 899-900 (N.D. Cal. 1996)(anecdotal case reports are not derived through the scientific method and "fall short of the proven, cause and effect relationship that is necessary to satisfy the *Daubert* standard"); *Casey v. Ohio Med. Prod.*, 877 F. Supp. 1380, 1385-86 (N.D. Cal. 1995) (case reports are not reliable scientific evidence of causation and not sufficiently based on scientific reliability and methodology to be admitted into evidence). All of these factors are implicated in Hawkeye's motion to preclude Mr. Carlson's opinions. None of the factors are satisfied.

The methodology or technique used by Mr. Carlson in reaching his opinion that the leaking toilet is the "primary" source for the *Stacybotrys* and *Chaetomium* mold in Plaintiffs' home is not scientifically reliable or valid. In particular, neither Mr. Carlson nor anyone else has used this methodology in any other case, this methodology has not been the subject of any peer reviewed scientific publication, the potential error rate of such methodology is unknown, and there is no proof that this methodology is generally accepted by the scientific community. Moreover, Mr. Carlson has not done any independent research concerning the methodology he uses in this case. The reasoning and methodology which he has referenced in his opinions was developed and used by him for the first time for this litigation.

Furthermore, Mr. Carlson has never published any peer reviewed articles or papers in which he discusses or sets forth any methodology or system for establishing or differentiating between or among the "primary" or "secondary" sources of mold found in indoor environments, as he purports to do in this case. (Carlson Dep. at 111-112.) He also does not know if the terms "primary" or "secondary" are terms used in the industrial hygiene field with reference to sources

for mold detected in indoor environments. (*Id.* at 83.) There is no evidence that Mr. Carlson's methodology or hypothesis can be empirically tested, and his results or opinions replicated, outside of the confines of this case.

The unreliability of the methodology upon which Mr. Carlson bases his opinions in this case is underscored by the statements of his colleague McGregor Pearce. After investigating the water intrusions and suspected mold damage at Plaintiffs' home, Mr. Pearce concluded that "no reasonable conclusion" could be reached, in view of all of the various sewer backups and water intrusions in the basement of Plaintiffs' home over the years, as to "what caused what" mold in the home. (Carlson Report Ex. 6.)

Most importantly, in his deposition in this case Mr. Carlson has admitted, in view of the many water intrusions in Plaintiffs' home prior to July 2002, that "to some degree there is always a level of uncertainty" in trying to sort out what caused the various mold types found in Plaintiffs' home. (Carlson Dep. at 181-82.) However, Mr. Carlson cannot quantify what level of uncertainty exists in applying his methodology and has not specified any potential error rate associated with his methodology. Significantly, Mr. Carlson admits that "no one can say" what was the source or cause of the *Aspergillus* and *Penicillium* mold types that Plaintiffs allege contaminate their home and personal property. (Carlson Dep. at 176-77.)

Mr. Carlson's observations of water stains on floors in various areas of the basement as purported grounds for his opinions about the source of mold in the home are patently unreliable. Indeed, Mr. Carlson admits both that he is not an expert in interpreting water stain lines on floors and that the stains he observed in Plaintiffs' home may have been caused by several events unrelated to the leaking toilet. (Carlson Dep. at 68, 71, 141-44, 145-46.)

Similarly unreliable is Mr. Carlson's assertion that 90% of the *Stachybotrys* and *Chaetomium* mold spores found in Plaintiffs' home are attributable to the leaking toilet. He bases this "best estimate" of 90% on a comparison between the "volume" or amount of visible *Stachybotrys* and *Chaetomium* found on the sheetrock and baseboard in the southwest bedroom and the allegedly smaller amounts of those same mold types that he admits were found in other areas of the basement affected by the July 2002 sewer backup. However, there is no photographic or videographic evidence showing the volume or amount of suspected *Stachybotrys* or *Chaetomium* mold that was present and removed from the sheetrock and the baseboards of the walls of the southwest bedroom. Nor is there any evidence as to how much disturbance the molds in each of those locations were subjected to or how much mold spore dispersal such disturbance could be expected to generate. Moreover, Mr. Carlson does not reference any peer-reviewed scientific publications or articles that explain whether and how such visible mold amounts could be extrapolated to or correlated with the mold levels detected in air samples taken from various areas of the home. Therefore, there is no objective way to test the empirical validity of Mr. Carlson's methodology. Based on his own testimony, there is no scientific basis for Mr. Carlson's opinions that the leaking toilet was the "primary source" of the *Stachybotrys* and *Chaetomium* mold spores detected in various areas of the home. His opinion regarding "primary" and "secondary" sources of mold found in Plaintiffs' is an artificial construct based on pure *ipse dixit*, which renders the testimony inadmissible. *Glastetter v. Novartis Pharms. Corp.*, 252 F.3d 986, 990 (8th Cir. 2001) ("[n]othing in either Daubert or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert") (quoting *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997)).

Mr. Carlson's opinions regarding the sources and causes of the mold in Plaintiffs' home are inadmissible under Rule 702 of the Federal Rules of Evidence and the *Daubert* principles, because he lacks the requisite expertise and qualifications to render them and they are not based on any scientifically accepted and reliable methodology. Furthermore, Mr. Carlson should be precluded from testifying, because he is unable to testify to a reasonable degree of scientific certainty that the leaking toilet in the master bedroom of Plaintiffs' home was the "primary source" of the *Stachybotrys* and *Chaetomium* mold types allegedly contaminating Plaintiffs' home and personal property.

**B. Carlson's Testimony Should Be Precluded
Because It Does Not "Fit" the Matters At Issue**

The second prong or test that Plaintiffs must satisfy is to prove that Mr. Carlson's opinions are relevant, or "fit" the matters at issue in this action. *See Cloud*, 198 F. Supp. 2d at 1130. The court must ensure that an expert's opinion "logically advances a material aspect of the proposing party's case." *Id.*; *Daubert (II)*, 43 F.3d at 1315. Importantly, this requirement that the opinions "fit" the issues is higher and more exacting than mere relevance under Rules 401 and 402. *Id.* Therefore,

Federal judges must exclude proffered scientific evidence under Rule 702 unless they are convinced that it speaks clearly and directly to an issue in dispute in the case, and that it will not mislead the jury.

Id.; *Daubert (II)*, 43 F.3d at 1321.

Plaintiffs and Mr. Carlson admit that there were numerous water intrusion events in Plaintiffs' home occurring over many years preceding the July 2002 sewer backup and detection of mold in the southwest bedroom and other areas of the home. In addition, they both admit that those other water intrusions gave rise to the same mold types—*Stacybotrys*, *Chaetomium*, *Aspergillus* and *Penicillium*—that allegedly also emanated from the leaking toilet. In these circumstances, Mr. Carlson's opinions concerning "primary" and "secondary" sources for the mold found in Plaintiffs'

Plaintiffs' home does not "speak clearly and directly" to the factual matters in dispute or the coverage issue to be resolved here—whether the leaking toilet was "the dominant and efficient cause" of alleged toxic contamination of property for which Plaintiffs seek coverage under their Hawkeye policy.

It is clear that Mr. Carlson cannot opine as to the level of toxins present at the time he tested Plaintiffs' home. **This is because neither he nor anyone else ever tested for the presence of mycotoxins in the air in Plaintiffs' home.** In other words, there is absolutely no evidence about what quantity of mycotoxins, if any, were present in the air of Plaintiffs' home. Mr. Carlson's report does not even establish facts sufficient to show that any of the mold types found in Plaintiffs' home produced mycotoxins at a level that could pose health risks to occupants. There is no dispute that mold is ubiquitous in both indoor and outdoor environments. Consequently, the presence of mold cannot be a basis for liability unless such molds produced mycotoxins at "excessive" levels. But there is no scientific or medical agreement about what constitutes "excessive" mycotoxin levels. Mr. Carlson asserts that results from air sampling done in the home on July 29, 2002, show that the spore levels of some mold types were elevated inside the home when compared to the outdoor air. However, he cannot show that those molds produced toxins at elevated levels inside the home.

Mr. Carlson's testimony concerning the sources of mold in Plaintiffs' home is not relevant, does not "fit" this case, and should be excluded, because there is no evidence as to whether any of the mold spores found in Plaintiffs' home were generating toxic substances and contaminating the home and personal property located therein. Even where expert opinion evidence is deemed reliable by a court, the evidence will still be excluded if it is not "sufficiently tied to the facts of the case" so as to be helpful to the jury. *Daubert*, 509 U.S. at 591. As seen above, Mr. Carlson's opinions concerning the "primary" and "secondary" sources of mold are not reliable under any test applied by a United States court.

The strongest inference from Carlson's testimony is that there possibly could have been elevated levels of certain mold types resulting from a covered event under the Hawkeye policy (the leaking toilet) and that such molds possibly could have produced elevated levels of mycotoxins in the air in Plaintiffs' home which exceeded ambient outside levels, thus possibly contaminating Plaintiffs' home and personal property. This sort of testimony is inadmissible under *Daubert*.³ *Glastetter v. Novartis Pharms. Corp.*, 252 F.3d 986, 992 (8th Cir. 2001) (excluding expert testimony, because expert could not demonstrate causation to a degree of medical certainty). Carlson's proposed testimony as reflected in his report does not "fit" the matter in dispute and may mislead the jury. Therefore, Carlson's testimony as reflected in his report and deposition testimony should not be admitted at the trial of this case.

Mr. Carlson is Plaintiffs' industrial hygiene expert. Plaintiffs hope to establish through his testimony that their home and personal property were contaminated by dangerous levels of mycotoxins produced by molds that were caused by a leaking toilet. However, Mr. Carlson's opinion that the leaking toilet was the "primary source" of *Stachybotrys* and *Chaetomium* mold is irrelevant to the coverage matters at issue this case because there is no evidence that any of the mold types found in the home in late July 2002, whether resulting from the leaking toilet or any other source, generated or produced any harmful levels of mycotoxins to which the Garrys were likely exposed. In fact, Plaintiffs did not make any attempt to test their home for the presence of mycotoxins before they abandoned the home on or about August 1, 2002. It is pure speculation for Mr. Carlson now to assert that, based on the observations and inspections he made eight months after Plaintiffs moved out of their home, that Plaintiffs' home was contaminated with mycotoxins when they left the home. This

³ *Cf. Daubert*, 43 F.3d at 1322 (where strongest inference from expert opinion is that Bendectin

(Footnote continued on next page)

Court should exclude Mr. Carlson's testimony regarding whether mycotoxins were present in the air of Plaintiffs' home before they abandoned their home.⁴

CONCLUSION

The proposed opinions of Plaintiffs' industrial hygiene expert Neil Carlson do not satisfy the *Daubert* standard because his opinions are not scientifically reliable and do not "fit" or relate to the facts in dispute or the coverage issue to be resolved in this action. In particular, the methodology or technique used by Mr. Carlson in reaching his opinion that the leaking toilet is the "primary" source for the *Stachybotrys* and *Chaetomium* mold found in Plaintiffs' home is not scientifically reliable or valid. Neither Mr. Carlson nor anyone else has used this methodology in any other case, this methodology has not been the subject of any peer-reviewed scientific publication, the potential error rate of such methodology is unknown, and there is no proof that this methodology is based on any scientific knowledge or is generally accepted by the scientific community.

Moreover, to the extent that Mr. Carlson opines that mycotoxins were present in the air of Plaintiffs' home and were primarily attributable to molds from a leaking toilet, his testimony does not fit the facts or the matters at issue in this case because there is no evidence that any mycotoxins were produced or generated in Plaintiffs' home at any time, let alone at elevated levels that might be deemed sufficient to constitute "contamination." Consequently, Mr. Carlson's opinions concerning the "primary" and "secondary" sources of any mold detected in Plaintiffs' home should not be admitted.

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could possibly have caused plaintiff's injuries, testimony is inadmissible in toxic tort case).

For these reasons, Defendant Hawkeye requests that this Court exclude Mr. Carlson as a witness in this case. Hawkeye believes the record presented is sufficient to grant this Motion, but if not, then Hawkeye requests that this Court schedule an evidentiary hearing pursuant to *Daubert*.

Dated at Sioux Falls, South Dakota, this 15th day of November, 2004.

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⁴Expert opinion evidence establishing a fact in issue must be supported by “more than subjective belief or unsupported speculation.” *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. at 590.

CERTIFICATE OF SERVICE

The undersigned, one of the attorneys for Defendant Homeland Central Insurance Company formerly known as Hawkeye Security Insurance Company, hereby certifies that a true and correct copy of the foregoing “Defendant’s Brief in Support of Its Motion to Exclude Testimony of Neil Carlson” was served by electronic filing upon:

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